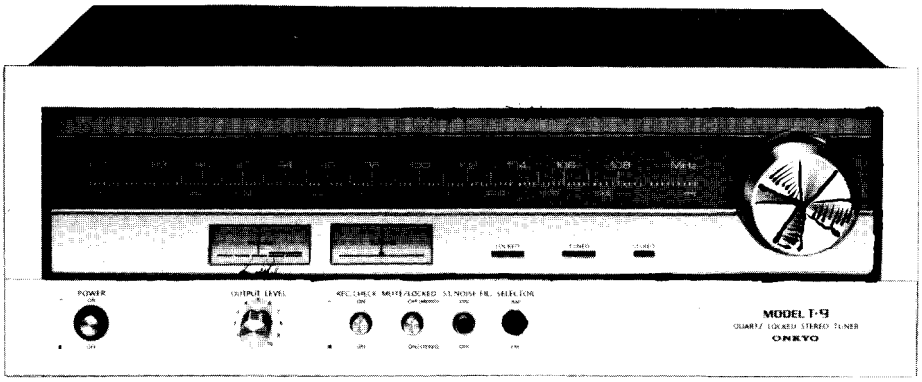
ONKYO® SERVICE MANUAL

QUARTZ LOCKED AM/FM STEREO TUNER

Model T—9



SPECIFICATIONS

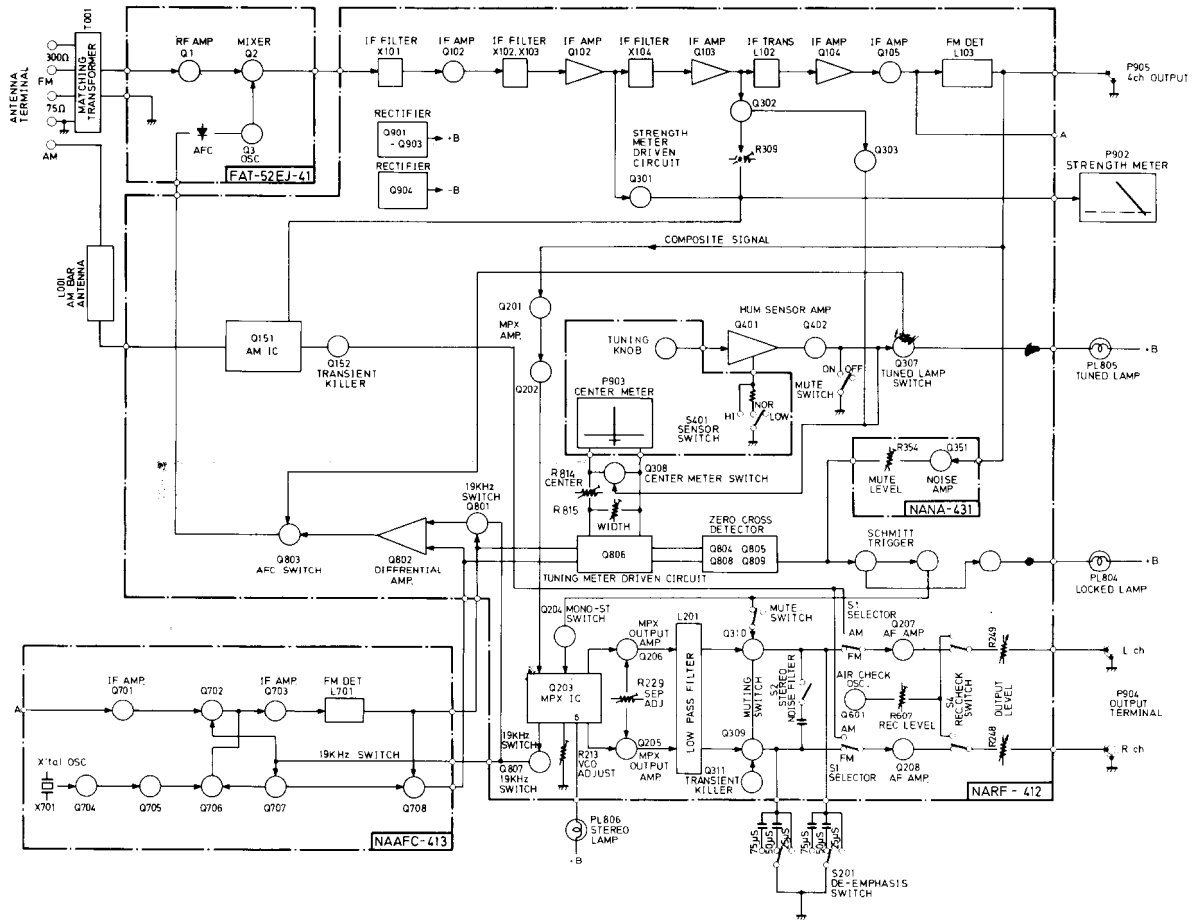
Power Supply Rating	AC 120 V, 60 Hz (U.S.A. Model) AC 110/120/220/240 volts 50/60 Hz (Universal Model)	
Tuning Range:	FM:	87.5 – 108 MHz
	AM:	530 – 1605 kHz
Usable Sensitivity	FM Mono:	1.7 μV, 9.8 dBf
	FM Stereo:	4 μV, 17.2 dBf
	AM:	25 μV
50 dB Quieting Sensitivity	FM Mono:	3 μV, 14.7 dBf
	FM Stereo:	35 μV, 36 dBf
Intermediate Frequency	FM:	10.7 MHz
	AM:	455 kHz
Capture Ratio	FM:	1.5 dB
Image Rejection Ratio	FM:	83 dB
	AM:	55 dB
IF Rejection Ratio	FM:	100 dB
	AM:	55 dB
Spurious Rejection	FM:	95 dB
Signal to Noise Ratio	FM Mono:	73 dB
	FM Stereo:	65 dB
	AM:	45 dB
Alternate Channel Attenuation	FM:	80 dB
AM Suppression Ratio	FM:	50 dB
Harmonic Distortion	FM Mono:	0.15 %
	FM Stereo:	0.3 %
	AM:	0.8 %

Frequency Response	FM:	30 – 15,000 Hz + 0.5, – 2 dB
Stereo Separation	FM:	40 dB at 1 kHz 35 dB at 100 – 10,000 Hz
Pilot Suppression	FM:	60 dB
Muting Level	FM:	4 μV, 17.2 dBf
Stereo Threshould	FM:	4 μV, 17.2 dBf
Quartz Lock Level	FM:	4 μV, 17.2 dBf
Controls	POWER, TUNING, SELECTOR, OUTPUT LEVEL, MUTE/LOCKED (ON STEREO, OFF MONO), ST. NOISE FILTER, REC CHECK, SENSOR SWITCH, DE-EMPHASIS SWITCH	
Output Voltage	FM:	0 – 0.75 volts
	AM:	0 – 0.25 volts
Semiconductors	1 FET, 7 ICs, 46 transistors, 38 diodes	
Antennas	FM:	300 ohms balanced and 75 ohms unbalanced
	AM:	Built-in ferrite core antenna and external terminal
Dimensions:	444 mm (17 1/2") W x 159 mm (6 1/4") H x 380 mm (15") D	
Weight:	7 kg (15.4 lbs.)	

Specifications are subject to change without notice.

ONKYO®
AUDIO COMPONENTS

BLOCK DIAGRAM



QUARTZ LOCKED CIRCUIT

The IF component and the quartz oscillation signal at 10.7 MHz of Q704 are detected with the cycle of 19 kHz, and the varience of the detected output is amplified with the DC voltage being imparted to the variable capacitor diode at the front end. In this way, the local oscillation frequency is regulated.

"ACCUTOUCH CONTROL" TUNING SENSOR

When the tuning knob is touched, a special sensor releases the quartz oscillator lock of permit tuning to another station. Releasing the knob automatically reactivates the quartz lock, to maintain precise tuning at all times. If you fail to tune in the signal sharply, the quartz lock circuit with automatically compensate to achieve optimum tuning.

Sensor Switch

Set sensor switch at low intially. Switch to normal or high if the TUNED lamp doesn't instantly turn off when you touch the tuning knob.

RECORDING CHECK CALIBRATION

Successful FM recording depends on correctly setting the recording level, as well as optimum antenna placement. To make possible accurate recording level settings, the T-9 is equipped with a signal generator which produces a 440 Hz signal corresponding to a 50 % modulation level. If FM recording levels are set with reference to this signal, perfect recordings will be obtained the first time, every time.

1. Place the REC Check switch in the On position.
2. Set recording levels using tape deck input level controls so that VU meter readings are as follows:
   Open Reel . . . . . 0 to +2 dB
   Cassette . . . . . −2 dB
3. Turn Off REC Check.
4. The output level knob should not be moved after recording levels are set. It is recommended that this control not be moved at all, once tuner output level has been adjusted to match other components in the system.

DE-EMPHASIS SWITCH

Use this switch to set de-emphasis according to geographic area (U.S.A. 75 μsec, Europe 50 μsec), and for Dolby recording (25 μsec).

ALIGNMENT PROCEDURES

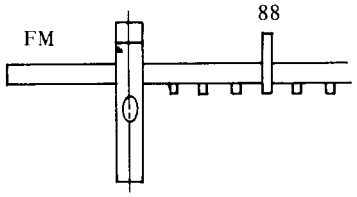
INSTRUMENTS REQUIRED

1. DC Ammeter
2. DC Voltmeter
3. AM/FM Sweep Generator
4. AM/FM Signal Generator
5. Vacuume Tube Voltage Meter (VTVM) AC, DC
6. Oscilloscope
7. Monitorscope
8. Distortion Analyzer
9. Stereo Modulator
10. Frequency Counter

GENERAL ALIGNMENT CONDITIONS

1. Signal input should be kept as low as possible.
2. Standard modulation is 400 Hz 30 % (AM), 400 Hz 100 % (FM MONO), pilot 10 % sub and main 90 % (FM STEREO).

ATTACHMENT OF DIAL POINTER

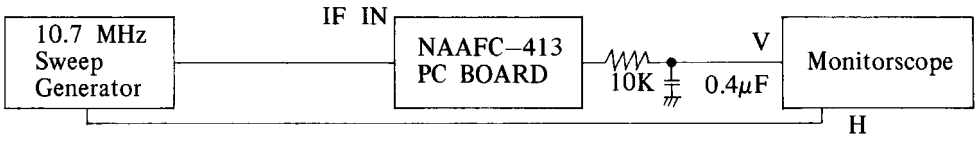


fig–1

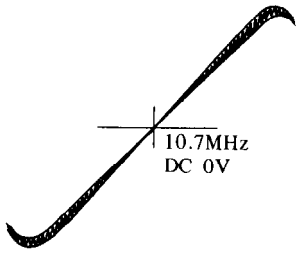
1. Close the variable capacitor completely.
2. Set the radio dial pointer to zero (0) on dial scale and install the dial pointer ass'y.

QUARTZ LOCKED CIRCUIT ALIGNMENT

1. Set SELECTOR switch to FM.
2. Connect 10.7 MHz sweep generator to IF IN Terminals on NAAFC–413 p.c.b.
3. Connect the monitorscope vertical input through 10KΩ resistor and 0.4 μF ceramic capacitor between R727 and R730.

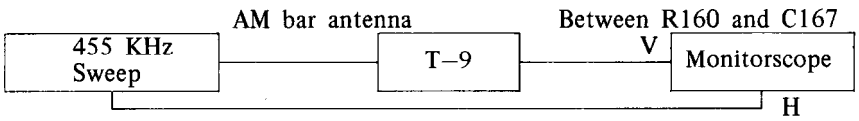


10.7 MHz Sweep	Adjustment	Adjustment for
10.7 MHz	L701	Maximum symmetrical response fig–2

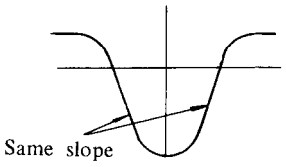


fig–2

AM IF ALIGNMENT



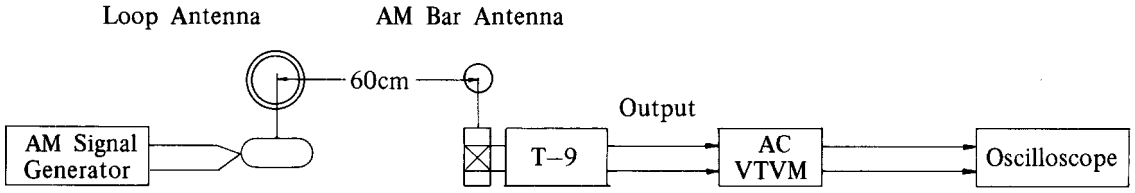
Set Radio Dial	Adjust	Adjust for	Remarks
Upper end	X151	Maximum symetrical response	Usally not necessary to adjust



fig–3

AM RF ALIGNMENT

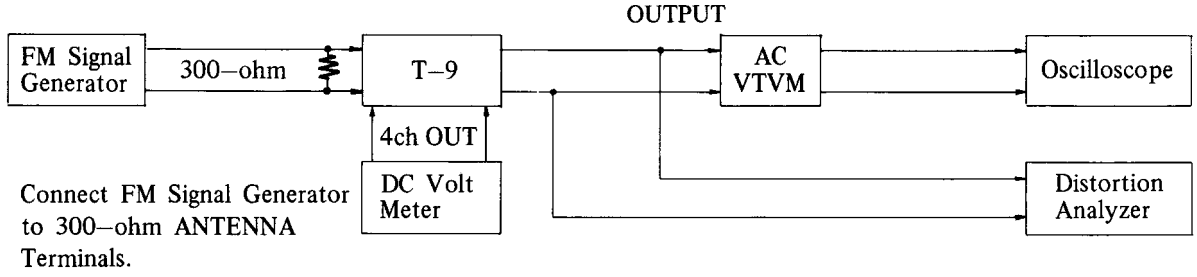
Confirm start point of dial pointer before alignment.



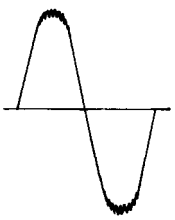
Step	AM Signal Generator	Dial to set	Adjust	AC VTVM reading	Remarks
1	515 KHz 400 Hz 30% mod.	515KHz Lower end	L152 NMO–2503	Maximum	Repeat step 1 and 2 as necessary
2	1680 KHz 400 Hz 30% mod.	1680 KHz Upper end	TC–6	Maximum	
3	600 KHz 400 Hz 30% mod.	600 KHz	L001 NMA–1006 L151 NMRF–2503	Maximum	Repeat step 3 and 4 as necessary
4	1400 KHz 400 Hz 30% mod.	1400 KHz	TC–2 TC–4	Maximum	

FM FRONT END ALIGNMENT

Set SELECTOR switch to FM.



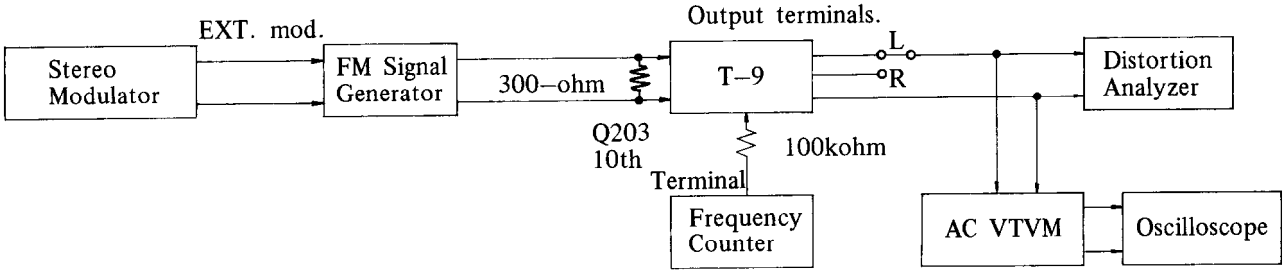
Connect FM Signal Generator to 300–ohm ANTENNA Terminals.



fig–4

Step	FM Signal Generator	Dial to set	Adjust	Output Indicator	Adjust for	Remarks
1	No Signal	Quiet Point	L102 Bottom	DC Volt Meter	0mV	
2	98 MHz 400 Hz 100% mod. 60dB	98 MHz	L102 Top	Distortion Analyzer	Minimum Distortion	
3	Repeat step 1 and 2 as necessary.					
4	98 MHz 400 Hz 100% mod. 60dB	98 MHz	R814	TUNING Meter	Center	
5	90 MHz 400 Hz 100% mod. 60dB	90 MHz	L6 OSC Coil	DC Volt Meter	0mV	
6	106 MHz 400 Hz 100% mod. 60dB	106 MHz	TC7 OSC Trimmer	Same as above	0mV	
7	Repeat step 5 and 6 as necessary.					
8	90 MHz 400 Hz 100% mod.	90 MHz	L1 L2 L3	AC VTVM or Oscilloscope	Maximum	Set FM Signal Generator level as low as possible. fig–4
9	106 MHz 400 Hz 100% mod.	106 MHz	TC1 TC3 TC5	Same as above	Maximum	
10	Repeat step 8 and 9 as necessary.					
11	98 MHz 400 Hz 100% mod.	98 MHz	L5 IF Core Top and Bottom L101	AC VTVM or Oscilloscope	Maximum	

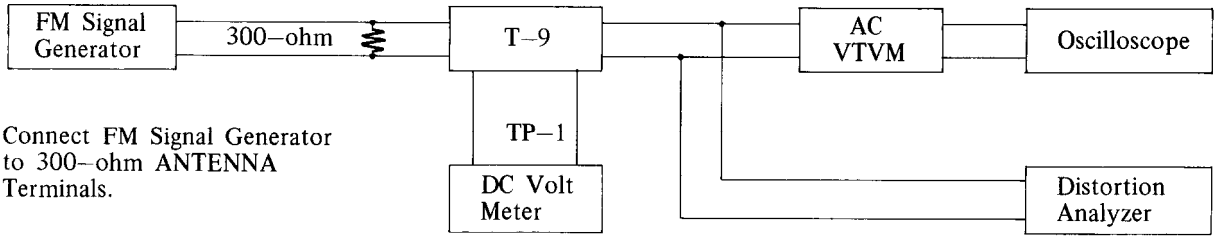
FM MONO DISTORTION AND MULTIPLEX ALIGNMENT



Alignment	Step	FM Signal Generator	Stereo Modulator	Dial to set	Adjust	Output Indicator	Adjust for	Remarks
Mono Distortion		98 MHz 400Hz 100% mod. 60dB	———	98 MHz	L102 Bottom	Distortion Analyzer	Minimum	
19 KHz	1	98 MHz 400 Hz No mod. 60dB	———	98 MHz	R214	Frequency Counter	19 KHz	
	2	STEREO INDICATOR should light up when stereo program is being received.						
Multiplex	1	98 MHz EXT. Mod.	Pilot Sig. 10% Main & Sub Sig. 1 KHz Lch 90%	98 MHz	R229	AC VTVM Right ch.	Minimum	Repeat step 1 & 2 as necessary
	2	Same as above	Pilot Sig. 10% Main & Sub Sig. 1 KHz Rch 90%	98 MHz	R229	AC VTVM Left ch.	Minimum	

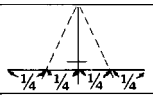
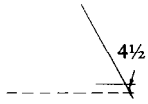
FM TUNING METER, STRENGTH METER AND MUTING ADJUSTMENT

Set SELECTOR switch to FM.

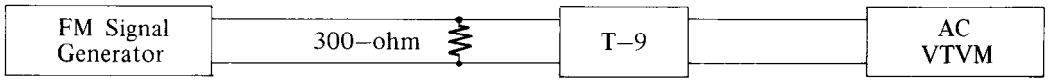


Connect FM Signal Generator to 300–ohm ANTENNA Terminals.

Set TUNING dial pointer and FM Signal Generator Frequency (no mod.) to 98 MHz.
Confirm LOCKED LAMP should light up.

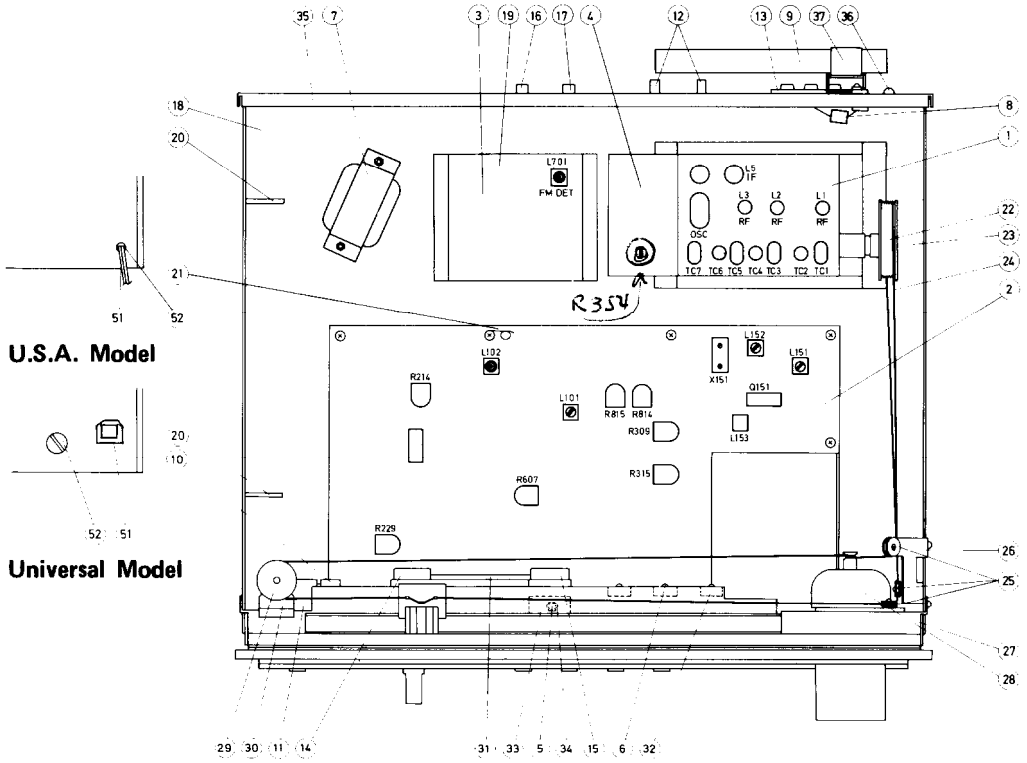
Adjustment		FM Signal Generator	Dial to set	Adjust	Output Indicator	Adjust for	Remarks
TUNING METER		98 MHz 60dB no mod.		R815(width) R814(center)	TUNING METER		
STRENGTH METER		98 MHz 400 Hz 100% mod. 70dB	98 MHz	R309	STRENGTH METER		
MUTING	1	98 MHz 400 Hz 100% mod. 12dB	98 MHz	R354	Oscilloscope or AC VTVM	signal	Repeat step 1 & 2.
	2	11dB				no signal and noise	

RECORDING CHECK LEVEL ADJUSTMENT



Step	FM Signal Generator	Dial to set	Adjust	AC VTVM
1	98 MHz 60dB 400 Hz 100% mod.	98 MHz	Level Control	600mV
2	Place the REC check switch in the ON position.			
			R607	300mV

CHASSIS LAYOUT



PARTS LIST

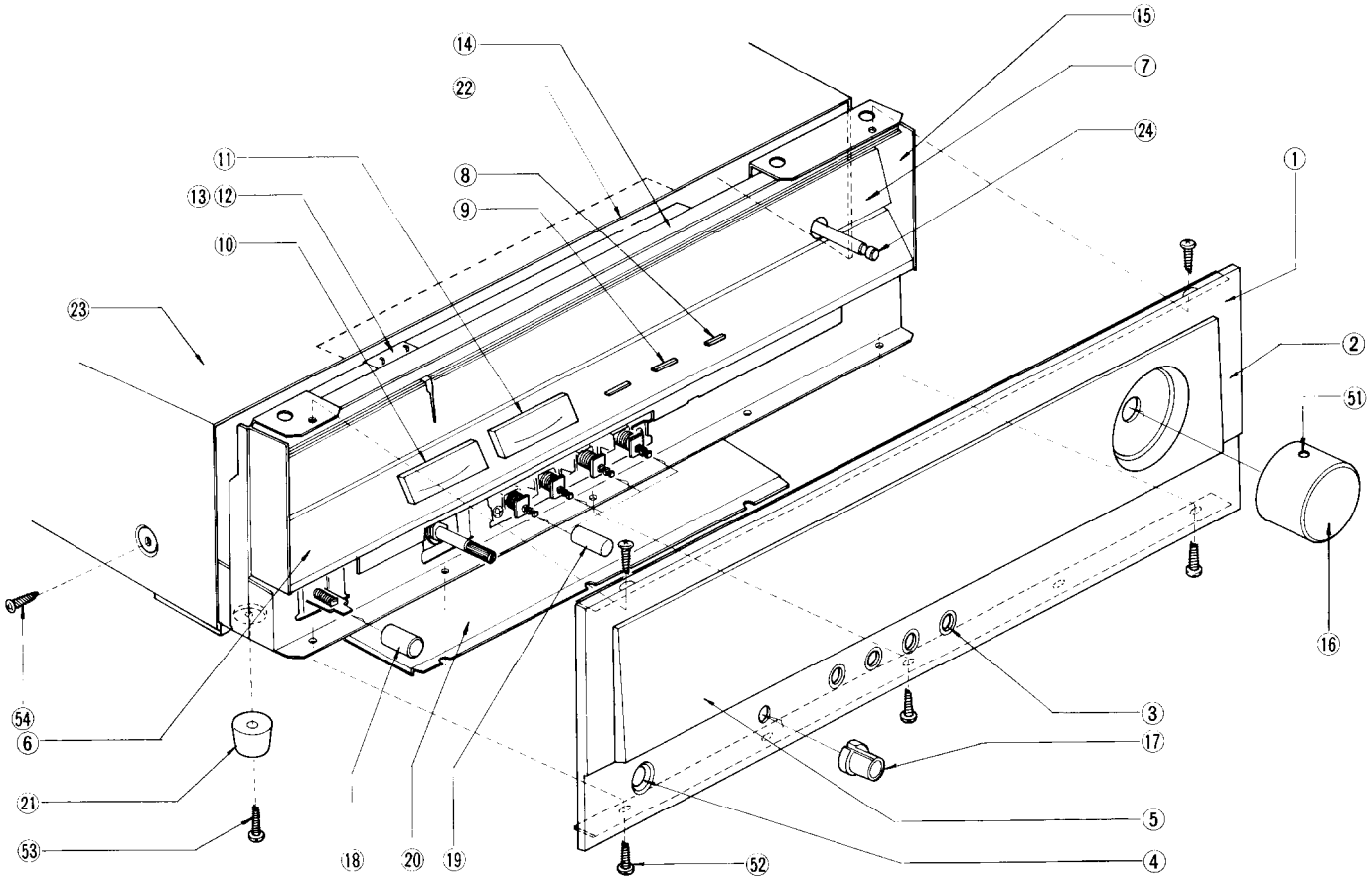
U.S.A. Model

REF. NO.	PARTS NO.	DESCRIPTION
1	240037	FAT–52EJ–41 Front End
2	13769512	NARF–412 AM/FM P.C.B. Complete
3	13769513	NAAFC–413 AFC P.C.B. Complete
4	13769531	NANA–431 Noise amp. P.C.B. Complete
5	210015A	PL6.3V 50mA W3UL RED Meter Lamp
6	210030	PL6V 30mA W3UL WHT Indicator Lamp
7	230196	NPT–609D Power Transformer
8	233026	NBLN–1 Matching Transformer
9	232061	NMA–1006 AM Antenna
10	3504012	0.01μF±10% 125V UL Capacitor
11	25035054	NPS–111–L19P Power Switch
12	25065016	NSS–2327 De-emphasis Switch, Sensor Switch
13	25060021B	NTM–3PUM1 Antenna Terminal
14	243066	NIND–0500S66 Strength Meter
15	243067	NIND–0250S67 Center Meter
16	25045023	NPT–2PRBL02 Output Terminal
17	250256A	NTM–1WPBL–E1 4 ch. Output Terminal
18	27100018A	Chassis
19	27225013	Shielded Case
20	260207	Cord Clip
21	270317	Pointer Lead Ring
22	27200020	Dial Drum
23	273803	SP–14A Dial Drum Spring
24	273903	Dial Cord
25	27185002	DP–16 Dial Pulley
26	27140124	Bracket
27	27110032–1	Front Bracket
28	27205007A	Drive Shaft Ass'y
29	27185001	Dial Pulley
30	27140125	Bracket
31	27140126	Meter Bracket
32	270214–1	Lamp Cover
33	27190022–1	Lamp Holder
34	28330020	Lamp Cap
35	27120067A	Back Panel
36	270280	SR–3K–4(UL) Strainrelief
37	27190021	Antenna Holder
51	253072	AS–UC Power Supply Cord
52	270025	SR–3P–4(UL) Strainrelief

Universal Model

REF. NO.	PARTS NO.	DESCRIPTION
1	240037	FAT–52EJ–41 Front End
2	13769512	NARF–412 AM/FM P.C.B. Complete
3	13769513	NAAFC–413 AFC P.C.B. Complete
4	13769531	NANA–431 Noise amp. P.C.B. Complete
5	210015A	PL6.3V 50mA W3UL RED Meter Lamp
6	210030	PL6V 30mA W3UL WHT Indicator Lamp
7	230197	NPT–609ADGQ Power Transformer
8	233026	NBLN–1 Matching Transformer
9	232061	NMA–1006 AM Antenna
10	3500052	PME271Y510CEE IS Capacitor
11	25035051	NPS–121–L16P Power Switch
12	25065016	NSS–2327 De-emphasis Switch, Sensor Switch
13	25060021B	NTM–3PUM1 Antenna Terminal
14	243066	NIND–0500S66 Strength Meter
15	243067	NIND–0250S67 Center Meter
16	25045023	NPT–2PRBL02 Output Terminal
17	250256A	NTM–1WPBL–E1 4 ch. Output Terminal
18	27100018A	Chassis
19	27225013	Shielded Case
20	260207	Cord Clip
21	270317	Pointer Lead Ring
22	27200020	Dial Drum
23	273803	SP–14A Dial Drum Spring
24	273903	Dial Cord
25	27185002	DP–16 Dial Pulley
26	27140124	Bracket
27	27110032–1	Front Bracket
28	27205007A	Drive Shaft Ass'y
29	27185001	Dial Pulley
30	27140125	Bracket
31	27140126	Meter Bracket
32	270214–1	Lamp Cover
33	27190022–1	Lamp Holder
34	28330020	Lamp Cap
35	27120068A	Back Panel
36	270280	SR–3K–4(UL) Strainrelief
37	27190021	Antenna Holder
51	25050018	PA–125 3P Inlet
52	250186	S–I7205–7 VS Socket
52	252023	0.5A–T Fuse

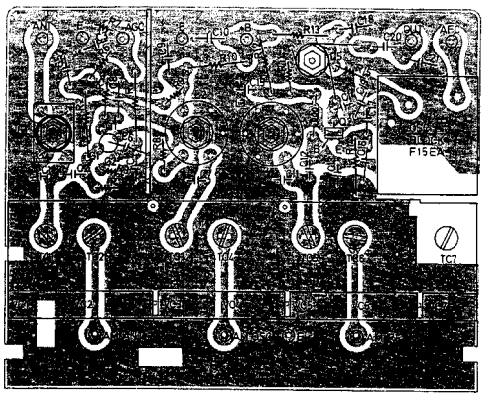
COMPONENT LOCATION



PARTS LIST

REF. NO.	PARTS NO.	DESCRIPTION	
1	13769121	Front Panel Ass'y	
2	27210072A	Front Panel	
3	27267014	Push Knob Guide	
4	27267015	Power Knob Guide	
5	28191015	Dial Glass	
6	27210068	Decorative Plate M	
7	28130050	Dial Plate -	
8	28198503	Facet	
9	28198504	Facet	
10	243066	Strength Meter	NIND-0500S66
11	243067	Tuning Meter	NIND-0250S67
12	210015A	Pointer Lamp	PL6.3V 50mA W3UL Red
13	28165039	Pointer	
14	28194025	Decorative Bar	
15	27215017-1	End Cap	
16	28320156	TUNING Knob	
17	28320157	LEVEL Knob	
18	28320159	POWER Knob	
19	28320160	Push Knob	
20	27170020	Bottom Board	
21	280379	Leg	
22	28140024	Cushion	
23	28184018A	Top Cover	
24	27205007A	Drive Shaft	
	Screws		
51	801146	Enamel Screw	
52	834130062	3STS+6BQ	
53	832140122	4STR+12BQ	
54	838440109	4TTB+10C(BC)	

FRONT END PC BOARD VIEW

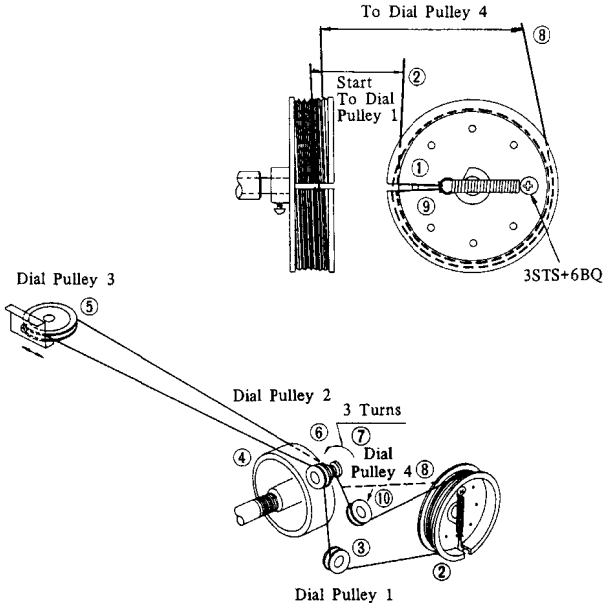


FAT–52–EJ–41 Bottom View

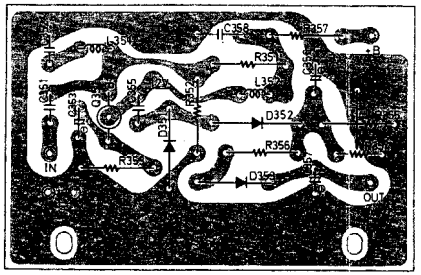
FRONT END PC. BOARD–PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
Q1	2211012	3SK45B FET RF amp.
Q2		2SC535(B) Mixer
	222013	F–15EA Osc. Block

STRINGING DIAGRAM



NOISE AMP. PC BOARD VIEW

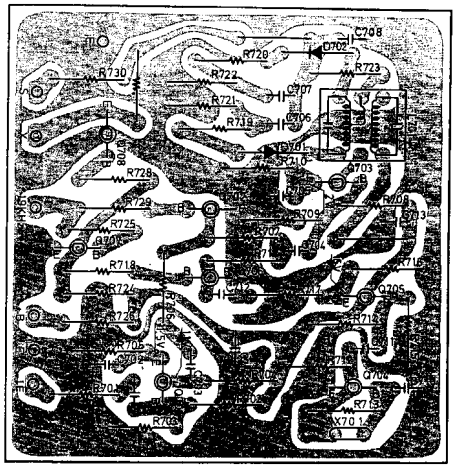


NANA–431 Bottom View

NOISE AMP. PC. BOARD–PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	TRANSISTOR	
Q351	2210086	2SC733(BL) Noise amp.
	DIODES	
D351, D352	2231031	1N60 Ⓝ FM
D353	223105	1S1555
	COILS	
L351	233018	NMC–4–11
L352	233031	NMC–9–1 2.2mH
	CAPACITORS	
C353, C356 C357	352780101	1μF 50V Elect.
	VARIABLE RESISTOR	
R354	5225013	N10HR100KBC Mute. Level

AFC PC BOARD VIEW



NAAFC–413 Bottom View

AFC. PC. BOARD–PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	TRANSISTORS	
Q701, Q703	2210123 or 2210823	2SC380(0) or 2SC1675(L–1) or FM IF Amp.
Q702, Q706	2210085	2SC733(GR)
Q707, Q708	or 2210743	or 2SC945(L)P or 19kHz Switch
Q704, Q705	2210123 or 2210823	2SC380(0) or 2SC1675(L–1) or Quartz Osc.
	DIODES	
D701, D702	2231031	1N60 Ⓝ FM
	TRANSFORMER	
L701	233075	NIT–3512R FM Det.
	CAPACITOR	
C714	352743301	33μF 16V Elect.
	X'TAL	
X701	3010015	XTL–10.7M

1. Close the variable capacitor complete and tie dial cord to the spring of the dial drum.
2. Thred dial cord in the direction of arrow from ① to ⑥ and wind dial cord three turns around the tuning shaft clockwise.
3. Thread dial cord in the direction of arrow from ⑦ to ⑨.
4. Thread dial cord to the dial pulley 4.

Loosen the tapping screw which fixes the dial pulley 3 to the bracket, move the bracket fitting forward and backward and adjust the tension of the dial cord.

AM/F M TUNER PC. BOARD VIEW

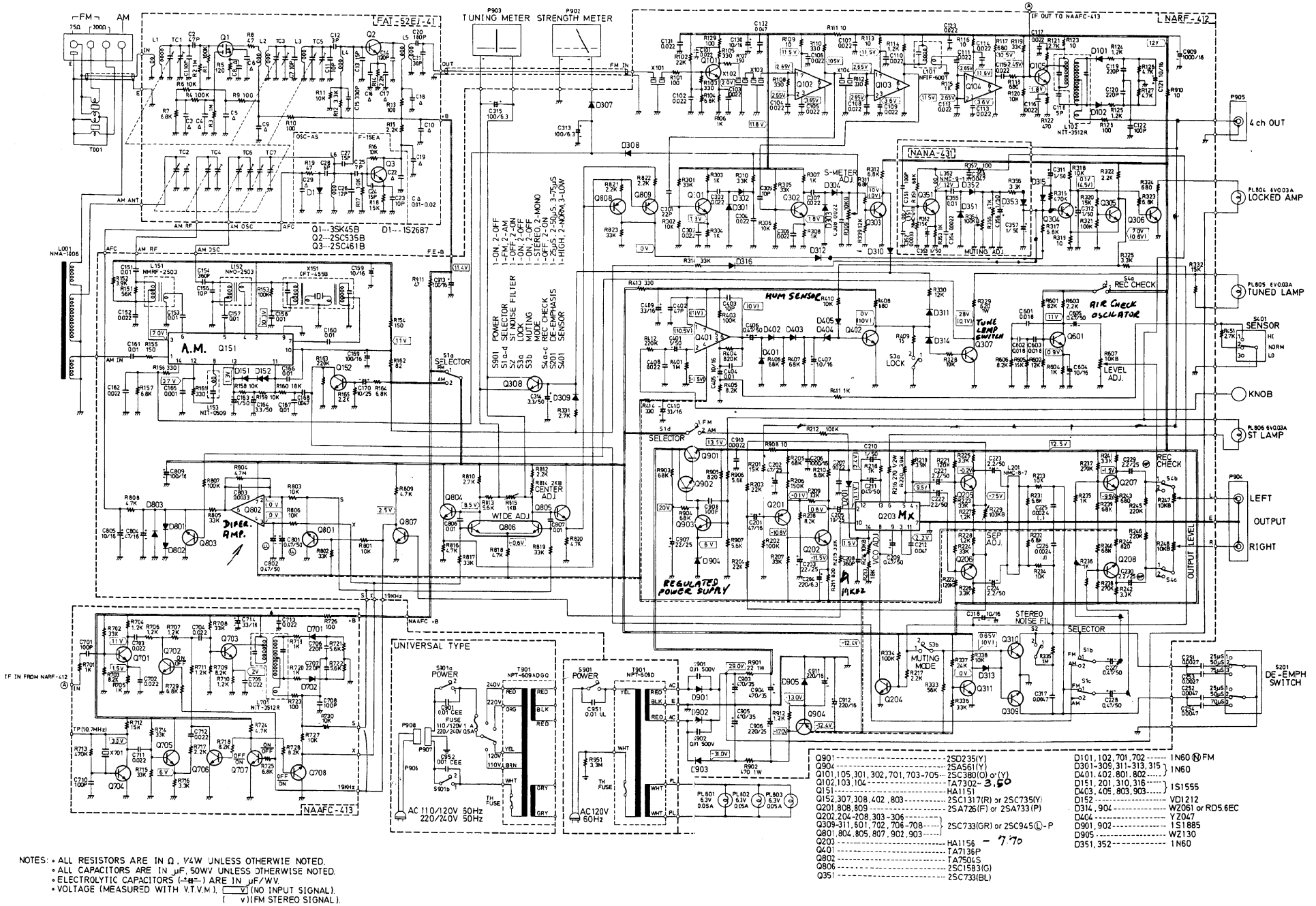
CIRCUIT NO.	PARTS NO.	DESCRIPTION
	ICS	
Q102–Q104	222452	TA–7302P FM IF Amp.
Q151	222418	HA–1151 AM
Q203	222419	HA–1156 MPX
Q401	222423	TA–7136P Hum Sensor Amp.
Q802	222424	TA–7504S Diffrential Amp.
	TRANSISTORS	
Q101, Q105	2210123, 2210124 or 2210823	2SC380(O), 2SC380(Y) or 2SC1675(L–1) or FM IF Amp.
Q152	2210943 or 2210244	2SC1317(R) or 2SC735(Y) or Transient Killer
Q201	2210416 or 2210803	2SA726(F) or 2SA733(P) or MPX Amp.
Q202	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or MPX Amp.
Q204	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or Mono–ST. Switch
Q205–Q208	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or MPX Output Amp.
Q301, Q302	2210123, 2210124 or 2210823	2SC380(O), 2SC380(Y) or 2SC1675(L–1) or Strength Meter Driven
Q303	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or
Q304, Q305	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or Schmitt Trigger
Q306	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or Locked Lamp Switch
Q307	2210943 or 2210244	2SC1317(R) or 2SC735(Y) or Tuned Lamp Switch
Q308	2210943 or 2210244	2SC1317(R) or 2SC735(Y) or Center Meter Switch
Q309, Q310	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or Muting Switch
Q311	2210085	2SC733(GR) Trensient Killer
Q402	2210943 or 2210244	2SC1317(R) or 2SC735(Y) or Hum Sensor Amp.
Q601 Q801	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or Rec. Check Osc. 19kHz Switch
Q803	2210943 or 2210244	2SC1317(R) or 2SC735(Y) or AFC Switch
Q804, Q805	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or Zero Cross Detector
Q806	2210707	2SC1583(G) Center Meter Driven
Q807	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or 19kHz Switch
Q808, Q809	2210416 or 2210803	2SA726(F) or 2SA733(P) or Zero Cross Detector
Q901	2200014	2SD235(Y) Rectifier
Q902, Q903	2210085 or 2210743	2SC733(GR) or 2SC945(L)P or Rectifier
Q904	2210074	2SA561(Y) Rectifier

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	DIODES	
D101, D102	2231031	1N60 Ⓝ FM
D151	223105	1S1555
D152	4000022	VD1212 Varistor
D201	223105	1S1555
D301–D304 D307–D309	223103	1N60
D310	223105	1S1555
D311–D313	223103	1N60
D314	223928 or 223948	WZ–061 or RD5.6EC or Zener
D315	223103	1N60
D401, D402		
D403, D405	223105	1S1555
D404	224011	YZ–047 Zener
D801, D802	223103	1N60
D803	223105	1S1555
D901, D902	223802	1S1885
D903	223105	1S1555
D904	223928 or 223948	WZ–061 or RD5.6EC or Zener
D905	223924	WZ–130 Zener
D316	223105	1S1555
	TRANSFORMERS	
L101	233096	NFIF–6001 FM IF
L102	233075	NIT–3512R FM DET.
L153	232041	NIT–0509 AM DET.
	COILS	
L151	232043	NMRF–2503 AM RF
L152	232013	NMO–2503 AM OSC
L201	233104 or 233032	NMC–5001 or NMC–8–7 or Low Pass Filter

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	CERAMIC FILTERS	
X101–X104	3010006	SFE–10.7MA (Red)
X151	3010012	CFT–455B
	CAPACITORS	
C130, C159	352741001	10μF 16V Elect.
C154	372323615	360pF±10% 50V ST
C163	352780101	1μF 50V Elect.
C164	352780331	3.3μF 50V Elect.
C169	352741011	100μF 16V Elect.
C170	352751001	10μF 25V Elect.
C201	352744701	47μF 16V Elect.
C202	352754701	47μF 25V Elect.
C203	352752201	22μF 25V Elect.
C204	352722211	220μF 6.3V Elect.
C205	352751001	10μF 25V Elect.
C206	352741021	1000μF 16V Elect.
C208	372323615	360pF±10% 50V ST
C209, C211	352784791	0.47μF 50V Elect.
C210	352780101	1μF 50V Elect.
C221–C224	352780221	2.2μF 50V Elect.
C227, C228	352784791	0.47μF 50V Elect.
C229, C230	352350227	2.2μF 25V NP
C311, C312	352780101	1μF 50V Elect.
C313	352721011	100μF 6.3V Elect.
C314	352780331	3.3μF 50V Elect.
C315	352721011	100μF 6.3V Elect.
C318	352741001	10μF 16V Elect.
C401	352780101	1μF 50V Elect.
C405	352741001	10μF 16V Elect.
C406	352784791	0.47μF 50V Elect.
C407	352741001	10μF 16V Elect.
C409–C410	352743301	33μF 16V Elect.

CIRCUIT NO.	PARTS NO.	DESCRIPTION
C604	352741001	10μF 16V Elect.
C605	352784791	0.47μF 50V Elect.
C801, C802	392884797	0.47μF±20% 50V LL
C804	352744701	47μF 16V Elect.
C805	352741001	10μF 16V Elect.
C809	352741011	100μF 16V Elect.
C903–C905	352764711	470μF 35V Elect.
C906	352752211	220μF 25V Elect.
C907	352752201	22μF 25V Elect.
C909	352741021	1000μF 16V Elect.
C911, C912	352742211	220μF 16V Elect.
C913	352741011	100μF 16V Elect.
	VARIABLE RESISTORS	
R214	5225017	N10HR10KBC VCO Adjust.
R229	5225058	N10HR50KBC Stereo Separation Adjust.
R247, R248	5148012	N16RG10KB35 Output Level Control
R309	5225017	N10HR10KBC Strength Meter Adjust.
R607	5225017	N10HR10KBC Rec, Level Adjust.
R814	5225055	N10HR2KBC Center Adjust.
R815	5225018	N10HR1KBC Width Adjust.
	RESISTORS	
R324	441626814	680Ω 1W Metal Oxide Film
R329	441626214	620Ω 1W Metal Oxide Film
R901	441622204	22Ω 1W Metal Oxide Film
	SWITCHES	
S1–S4	25035044	NPS–242–222–L09 Selector/ Mute./Lock/Rec. Check
	RADIATOR	
	270187–1	

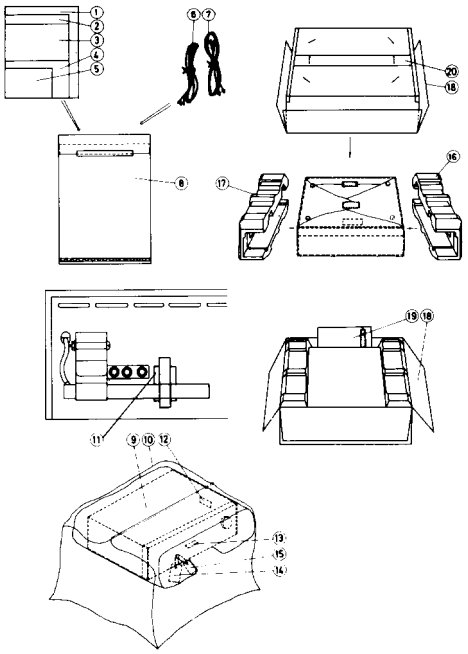
SCHEMATIC DIAGRAM



NOTES: • ALL RESISTORS ARE IN Ω, 1/4W UNLESS OTHERWIE NOTED.
• ALL CAPACITORS ARE IN μF, 50WV UNLESS OTHERWISE NOTED.
• ELECTROLYTIC CAPACITORS (-⊕-) ARE IN μF/WV.
• VOLTAGE (MEASURED WITH V.T.V.M.). [ ] V (NO INPUT SIGNAL).
( ) V (FM STEREO SIGNAL).

PACKING PROCEDURES

U.S.A.Model



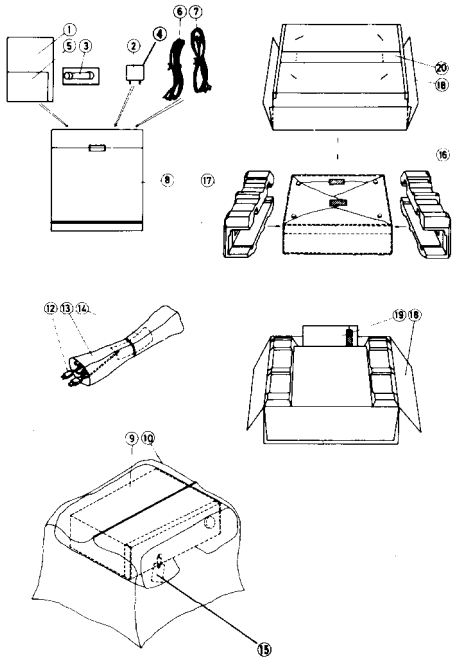
U.S.A. Model

1. All printed material and accessory items are placed in the poly bag.
2. The AC power cord is wrapped in paper and wound a rubber band.
3. The pad is inserted between the AM bar antenna and the back panel.
4. The sensor switch is set to low position.
5. The de-emphasis switch is set to 75μsec.
6. The cabinet composite tag and sensor tag are attached to the output level control knob.

PARTS LIST

REF. NO.	PARTS NO.	DESCRIPTION
1	29340202	Instruction Manual
2	29358001	Service Station List
3	29355046	Caution Card for Warranty Card
4	29365003	Warranty Card
5	292017-2	Silicon Cloth
6	292064	5059-03 FM Antenna
7	253074	Pin Cord
8	29100006A	250x350mm Poly Bag
9	290008	500x1000mm Sheet
10	29100027	850x650mm Poly Bag
11	29090230	Pad
12	282969	Caution Label A
13	293041	Caution Label
14	29380025	Cabinet Composite Tag
15	29355045	Sensor Tag
16	29090178	Pad, Left
17	29090179	Pad, Right
18	29090115A	Carton Box
19	13769119	Accessory Bag Complete
20	260012	Adhesive Tape

Universal Model



Universal Model

1. The voltage tag is attached to the plug of AC power cord.
2. The AC power cord is wrapped in paper and wound a rubber band.
3. The AC power cord, all printed material and accessory items are placed in a poly bag.
4. The pad is inserted between the AM bar antenna and the back panel.
5. The sensor switch is set to low position.
6. The de-emphasis switch is set to 50μsec.
7. The sensor tag is attached to the output level control knob.

PARTS LIST

REF. NO.	PARTS NO.	DESCRIPTION
1	29340204	Instruction Manual
2	25055018	Conversion Plug CV-K-1
3	252001	1A-T Fuse
4	29100002	150x80 Poly Bag
5	292017-2	Silicon Cloth
6	292064	5059-03 FM Antenna
7	253074	Pin Cord
8	29100006A	250x350mm Poly Bag
9	290008	500x1000mm Sheet
10	29100027	850x650mm Poly Bag
11	29090230	Pad
12	13876801	AC Power Cord
13	290076	AC Cord Wrapper
14	293268	Voltage Tag
15	29355045	Sensor Tag
16	29090178	Pad, Left
17	29090179	Pad, Right
18	29090115A	Carton Box
19	13770119	Accessory Bag Complete
20	260012	Adhesive Tape